

names, where such did not exist before. We do not for a moment deny that in many instances these types can be shown to pass into others by regular and almost imperceptible gradations, and that possibly all of them may, some day, be shown to be similarly connected with one another. Nor are we prepared to maintain that all these types, even where they have by common consent been regarded as of generic value, are so distinctively separated from others as to deserve the name of "genera," in the ordinary acceptation of this term. We have had, however, to face a difficulty which will increasingly meet the worker in any department of Invertebrate Palaeontology; and we think that this is, in the meanwhile, the best practical solution of it. Even if a better solution of the difficulty be ultimately found, no retardation or impediment to the progress of science in this department will result from our present adoption of this course. No type will be described by us which is not at the same time accurately figured; and the *facts* thus recorded will remain unchanged, and will retain their value, whatever alteration may take place in our method of interpreting them.

[To be continued.]

XL.—*Descriptions of new Mammalia from Persia and Balú-chistán.* By W. T. BLANFORD, F.R.S.

THE following descriptions have been in print for more than a year; but, owing to unforeseen delays, the work on Persian zoology in which they appear has not yet been published, and it is, I hear, likely that some time must elapse before it will be ready. Under these circumstances it appears to me desirable to describe the species of Mammalia supposed to be new, so as to avoid confusion of synonymy from the delay.

1. *Vespertilio desertorum*, Dobson, MS.

V. fusco-fulvus; auribus magnis, ad apices rotundatis, margine exteriore juxta apicem emarginata, inde ad basin tragi recta, concha punctis glandularibus confertim instructa; trago longo, angusto, acuto, margine interiore convexiuscula, exteriore concava; digitis tertio quartoque fere æqualibus; vertebra ultima caudæ membranam excedente; alis a basi digitorum pedum orientibus.

Long. corporis cum capite 2·1, caudæ 1·65, auris 0·65, tragi 0·35, radii 1·65, tibiæ 0·8 poll. Angl.

Hab. ad Jalk, Balúchistán.

The description is by Mr. Dobson, who very kindly examined and determined the few bats which I collected in Persia, as he had previously described those obtained by Major St. John (Journ. As. Soc. Bengal, 1870, vol. xl. pt. 2, p. 455).

2. *Erinaceus macracanthus*, sp. nov.

E. affinis E. aurito, Pall., aculeis longioribus, ad tergum posticum sesquipollicaribus, nigris, basin versus albido biannulatis; corpore subtus pilis longiusculis albidis, ad latera partim atque postice omnino fuscis induito; pedibus fuscis.

Long. tota 9·5, cranii 2·2, caudæ 1·25, auris 2, palmæ 1·2, plantæ 1·5 poll.

Hab. in Carmania.

This hedgehog is distinguished from all allied species by its long spines and the coloration. It is most nearly allied to *E. megalotis*, the Kandahar species; but the spines are longer, and entirely black towards the ends in the adult.

3. *Vulpes persicus*, sp. nov.

V. pallidus, rufescenti-isabellinus, fronte ferruginea; auribus extus pallide rufis, apices versus nigris, marginibus isabellinis; pilis dorsalibus pallidis, canescensibus, plerumque nigro terminatis, postice magis rufis, vellere purpurascens-cinereo, lanoso, longo; lateribus ventreque pallide isabellinis, vellere cinerascente vel albido; cauda rufescens vel isabellina, subtus pallidiore, apice albo vel nigro nullo; pedibus extus rufis, nonnullis pilis nigris sparsis immixtis.

Long. corporis cum capite (ad corium exsiccatum) circum 24, caudæ 14, auris 3·5, pedis posterioris cum tarso 5, cranii 5·15 poll.

Hab. in Persia, circum Shiraz, Isfahan, &c.

A near ally of *V. leucopus*, Blyth, bat larger, with much larger teeth, and differently coloured.

4. *Meles canescens*, sp. nov.

M. affinis M. Taxo, sed minor, canescens-griseo, haud fusco, dentibus posticis angustioribus.

Hab. in Persia circum Isfahan, &c.

This badger is much paler in colour than the common European species, and exhibits many cranial differences. A stuffed skin measures 2 feet 9 inches from the nose to the insertion of the tail. The skull is 5·1 inches long, 2·9 broad. It is broader between the orbits, and the nasal portion is shorter, than in *M. Taxus*; and whilst the last upper molar in a series of skulls

of the European badger varies in the proportions of its breadth to its length between $1 : 1\cdot12$ and $1 : 1\cdot2$, in *M. canescens* the same tooth exhibits the ratio of $1 : 1\cdot35$.

5. *Sciurus fulvus*, sp. nov.

S. affinis S. syriaco, sed valde pallidior, dorso griseo rufescente, antice magis rufo, gastræo isabellino, fronte rufa, genis isabellinis; cauda media superne ferruginea, ad latera subitusque fulva, multo breviore quam corpore; auriculis haud penicillatis.

Hab. in quercetis haud procul ab urbe Shiraz in Persia.

A stuffed specimen measures from nose to rump 7 inches, tail to the end of the hairs $7\frac{1}{2}$, fore foot $1\frac{1}{4}$, hind foot 2·1.

6. *Myoxus pictus*, sp. nov.

M. dorso pallide rufescenti-murino, gastræo albido, margine rufa colorem dorsalem a ventrali utrinque secernente, et ad femora, humeros lateraque colli infra aures in maculas ferrugineas dilatata; facie antice a fronte pallida, grisescente, utrinque fascia nigra a nari ad extremitatem anteriorem auris dueta, regionem ocularem amplectente, marginata; mystacibus superioribus nigris, inferioribus albis; auribus rotundatis, parum pilosis, fere nudis; cauda corpus longitudine subæquante, ubique hirta, pilis longis induta, supra grisea, subtus albescente; pedibus parvis, supra albis, subtus pallidis.

Long. corporis cum capite 3·5, caudæ 3·5, auris 0·6, palmæ 0·4, plantæ 0·78 poll.

Hab. ad Kohrud in Media (Persia hodierna septentrionali).

Near *M. Dryas*, but distinguished by the tail being whiter in colour, by the presence of a patch of red hairs beneath the ear, by the ears being larger and more hairy, and especially by the smaller feet, the sole of the hind foot measuring nearly an inch in *M. Dryas*, whilst it only measures 0·78 in the present species.

For the above distinctions I am indebted to Professor Peters, who obliged me by comparing a specimen which I sent to him for the purpose, as there was no specimen of *M. Dryas* in London.

7. *Mus erythronotus*, sp. nov.

M. supra ferrugineus, nigrescente lavatus, lateribus magis rufis; infra albus, coloribus bene discretis, haud transeuntibus; cauda fere nuda, corporis longitudinem subæquante; auribus magnis, rotundatis, fere nudis; pedibus superne albis, plantis nudis, fuscis; mamma 6, duabus pectoralibus, quatuor inguinalibus.

Long. corporis cum capite circum 4, caudæ 4·2, auris 0·55–0·7, lat. ejusdem 0·45–0·5, long. palmæ 0·4, plantæ 0·9 poll.

Hab. ad Kohrud in Media.

This mouse is allied to *M. sylvaticus*.

8. *Gerbillus persicus*, sp. nov.

G. affinis G. indica, supra ferrugineus, infra albus; cauda corpus longitudine excedente, superne rufesceni-brunnea, apicem versus nigra, subtus albida, ad latera haud pallide striata; auribus longis, sed minoribus quam in *G. indica*, parum pilosis, plantis latioribus, subtus sordide viridescentibus, vibrissis longioribus confertioribusque; dente molario superiore postico in adultis simpliei rotundo. Long. corporis cum capite 6.25, caudæ (vertebrarum) 6.5, pilorum ultra apicem 1, eranii 1.75, auris 0.85, palmæ 0.6, plantæ 1.55 poll.

Hab. in Persia.

This species, though very near *G. indicus*, is at once distinguished by wanting the dark line down the lower surface of the tail; the shape of the skull, too, is very different.

9. *Gerbillus nanus*, sp. nov.

G. parvus, longicaudatus, cauda corporis longitudinem duplam æquante, supra cervinus, infra albus, genis superciliisque albidis; cauda superne brunnea, subtus albescente, apice vix fusecente, pilis apicalibus vix elongatis; auribus medioeribus, fere nudis; mystacibus plerumque albis, superis ad basin fuseis.

Long. capitis cum corpore 2.6, eranii 1.05, caudæ (pilis apicalibus inclusis) 5, auris 0.45, plantæ 0.9 poll.

Hab. in Gedrosia (Balúchistán).

One of the smallest forms of the genus. A very closely allied species is common on the Abyssinian coast of the Red Sea, and was, probably incorrectly, referred by me to *Dipus Gerbillus*, Olivier.

10. *Dipus Loftusi*, sp. nov.

D. supra fusco-isabellinus; pilis mollissimis, basin versus pallide griseis, ad uropygium duntaxat nigro terminatis; subtus albus; femore extus fascia lata alba transversa signato, postice hand fuseo; mystacibus brunneis; auribus rotundatis, medioeribus, intus extusque pilis sparsim indutis; cauda supra brunnea, subtus pallida, apicem versus nigra, albo terminata.

Long. corporis cum capite 5-6, caudæ (vertebrarum) 6, pilorum ultra apicem 0.75, auris 0.75, tarsi cum pede posteriore 2 poll. (dimensionibus ad corium exsiccatum mensis).

Hab. ad Mohumrah in Mesopotamia (teste Loftus).

This species belongs to the subgenus *Scirtopoda*, section *Haltomys* of Brandt. It is distinguished from all its allies by

its colour and proportions. The only specimens I have seen are in the British Museum, and form part of the collections brought by the late Mr. Loftus from the banks of the Euphrates.

11. *Lepus craspedotis*, sp. nov.

L. supra fuscus ex nigro cum isabellino vermiculatum mixto, pilis mollissimis basin versus pallide cinereis, juxta apicem nigris, isabellino terminatis; subtus albus; nucha, collo posteriore pecto-reque fusco-rufescensibus; auribus magnis, extus brunneis, postice apicem versus nigris, intus fere nudis, margine posteriore isabellina, anteriore pilis longioribus albidis induita, apicem versus nigra; cauda supra nigra, ad latera subtusque alba.

Long. corporis cum capite 15, caudæ (vertebrarum) 3·5, auris 6 poll., lat. ejusdem 3·25, long. tarsi 4·25 (dimensiouibus ad femiam nuper occisam mensis).

Hab. in Gedrosia.

This hare differs greatly from all Indian species, and resembles *L. mediterraneus*, but it is less rufous and has much larger ears. A still more nearly allied form is a hare imperfectly described by Dr. Gray (Ann. & Mag. Nat. Hist. 1867, ser. 3, vol. xx. p. 222) as *Eulagos judææ*: this, however, is larger, the tarsus measuring 5·1 inches; and the fur is differently coloured.

XLI.—Descriptions of new Species of New-Zealand Fish.

By F. W. HUTTON, Curator of the Otago Museum.

Toxotes squamosus.

D. $\frac{5}{23}$. A. $\frac{3}{23}$. P. 20. V. 1 | 5. L. lat. 85. L. transv. 11/18.

Length twice and a third the height of the body, or nearly four times the length of the head; length of the snout equal to the width between the orbits. A single row of teeth on each palatine bone, none on the vomer; teeth in the jaws cardiform, the exterior row on the intermaxillaries larger. Diameter of the eye goes three times and a half into the length of the head. Maxillary extends back nearly to the vertical from the centre of the orbit. Operculum, praoperculum, and maxillary scaly, their margins smooth. Dorsal and anal fins covered with scales; the first soft ray of the dorsal and anal longest, behind which the fins suddenly contract and then maintain a uniform level along the tail. Pectorals long and pointed. Ventrals small, with a set of elongated scales just